Abstract

A digital controller for a DC converter has a timing and control unit which produces a control pulse signal with varying duty cycle and frequency in accordance with pulse on5 and off-times determined by digital values read from a look-up table addressed via an A-D converter in dependence upon an input voltage for the DC converter. The stored digital values are such that a period of the control pulse signal varies over a range of about two-thirds to about four-thirds of a nominal value. Closed loop feedback control can be added by modifying addressing of the look-up in dependence upon an error signal from the DC converter output voltage, with scaling depending on the input voltage.